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ABSTRACT

This paper focuses on the activities of colleges and universities providing options for the assessment of prior learning for adult students. The paper emphasizes programs with associate and baccalaureate degree-granting institutions in the United States and Canada. It is aimed at faculty members, practitioners, administrators, and policy-makers, as well as agency or legislative personnel interested in this growing aspect of postsecondary education. An attempt is made to provide sufficient detail to answer questions most often asked by these audiences concerning the adoption of a policy on credit for prior learning and to suggest appropriate resources for further study. The practice of awarding credit for prior learning is traced in the first section. In the second, various approaches to assessing prior learning are surveyed; included in this section is information about credit by examination, credit recommendations for noncollegiate courses, individualized assessment (study orientation, portfolio preparation, measurement and evaluation of learning outcomes, transcription or recording of credit awarded, and other institutional policies), evaluators and faculty development, special interest areas, and costs and fees. The third section discusses quality assurance and program evaluation. The last section examines future directions and implications. Information about credit-for-prior-learning publications is included in the appendixes. (CT)

Information Series No. 210

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CREDIT FOR PRIOR OR EXPERIENTIAL LEARNING

written by

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Iowa State Board of Regents

The ERIC Clearinghouse on Adult, Career, and Vocational Education
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1980

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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FOREWORD

The Educational Resources Information Center on Adult, Career, and Vocational Education (ERIC/ACVE) is one of sixteen clearinghouses in a nationwide information system that is funded by the National Institute of Education. One of the functions of the Clearinghouse is to interpret the literature that is entered in the ERIC data base. This paper should be of particular interest to educational decision-makers and practitioners who are considering how they might deal with credit awarded for experiential learning.

The profession is indebted to Elizabeth Stanley for her scholarship in the preparation of this paper. Recognition also is due Robert Templin, Piedmont (Virginia) Community College; Diana Bamford-Rees, Council for the Advancement of Experiential Learning; and Richard Miguel, The National Center for Research in Vocational Education, for their critical review of the manuscript prior to its final revision and publication. Robert D. Bhaerman, Assistant Director for Career Education at the ERIC Clearinghouse on Adult, Career, and Vocational Education, coordinated the publication's development.

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ABSTRACT

This paper focuses on the activities of colleges and universities providing options for the assessment of prior learning for adult students. The paper emphasizes programs within associate and baccalaureate degree-granting institutions in the United States and Canada. It is aimed at faculty members, practitioners, administrators, and policy-makers, as well as agency or legislative personnel interested in this growing aspect of postsecondary education. An attempt is made to provide sufficient detail to answer questions most often asked by these audiences concerning the adoption of a policy on credit for prior learning and to suggest appropriate resources for further study. The practice of awarding credit for prior learning is traced in the first section. In the second, various approaches to assessing prior learning are surveyed; included in this section is information about credit by examination, credit recommendations for noncollegiate courses, individualized assessment (study orientation, portfolio preparation, measurement and evaluation of learning outcomes, transcription or recording of credit awarded, and other institutional policies), evaluators and faculty development, special interest areas, and costs and fees. The third section discusses quality assurance and program evaluation. The last section examines future directions and implications. Information about credit-for-prior-learning publications is included in the appendixes. (CT)

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INTRODUCTION

The focus of this paper is on the activities of colleges and universities in providing options for the assessment of prior learning for adult students. Prior learning, sometimes referred to as nonsponsored experiential learning, may include skills and competencies acquired through work, volunteer services, training programs, or other learning activities. These experiences have been recognized as worthy of college credit by a number of institutions of higher education. The major emphasis in the paper will be on programs within associate and baccalaureate degree granting institutions in the United States and Canada.

Terminology in this area has, at times, been confusing. The term "experiential learning" typically is used to refer to learning as it occurs outside the classroom, although it is recognized that classrooms also provide experiential settings. As Willingham (1977, p. 1) noted, those primarily concerned with experiential learning emphasize "assessment of learning in situations in which the priority is ... upon observing, interacting, performing, making things happen, feeling the effects of these activities, noting responses of others, etc." "Sponsored" experiential learning generally denotes learning activities, such as cooperative education, field studies, practica, or internships, sponsored by the college or university and frequently occurring off-campus. "Nonsponsored" experiential learning may include a wide range of possible learning activities not sponsored by a college or university and typically occurring prior to the student's matriculation. Because of the latter characteristic of the activity, the term "prior" experiential learning is employed frequently.

The Task Force on Educational Credit and Credentials of the American Council on Education also has used the term

"extrainstitutional learning" to define learning that is attained outside the sponsorship of legally authorized and accredited post-secondary institutions (Miller and Mills, 1978, p. xvii).

When learning is acquired through participation in structured (and often classroom-based) training programs, the significance of the term "experiential" is questionable. Thus, some institutions simply use a designation of "prior learning," which may then include both experiential and classroom-based learning modes. This description is convenient since the learning outcomes of each are often evaluated within the same process. The term prior learning will be employed here as a convenient general description, but the alternate phrases of prior experiential learning and nonsponsored experiential learning will appear in discussions of the literature.

Most colleges and universities appear to indicate that they will only consider the awarding of credit for the learning outcomes or competencies gained through various learning experiences. The terms "credit for life" or "credit for experience" are misleading and should not be employed.

The publications for this review were identified in several ways. Computer searches, using such descriptors as prior learning, college credits, special degrees, nontraditional, evaluation, and military training, produced a number of pertinent citations. Additional relevant publications were identified through annotated bibliographies (e.g., Stutz and Knapp, 1977, 1978 and Gonzalez and Murphy, 1979), as well as through the examination of selected periodicals since 1978 (e.g., Alternative Higher Education: The Journal of Nontraditional Studies, Change, Journal of Higher Education, Lifelong Learning, and the North Central Association Quarterly.) The publications of the Council for the Advancement of Experiential Learning (CAEL) were particularly valuable. (See Appendixes.) Most of the pertinent publications have appeared since 1970; however, an emphasis was on those appearing since 1975. The references represent a selection of materials related to the topics discussed and are not intended to provide a complete bibliography on the topic.

The audiences for this paper include faculty members, practitioners, administrators, policy-makers, as well as agency or legislative personnel interested in this growing aspect of postsecondary education. An attempt is made to provide sufficient detail to answer questions most often asked by these audiences concerning the adoption of a policy on credit for prior learning and to suggest appropriate resources for further study.

BACKGROUND

Although often regarded as a development of the 1970s, the formal practice of awarding credit for prior learning can be traced to 1953, when the School of General Studies of Brooklyn College provided this option in an adult baccalaureate program. These experiences have been described by Stern (1960) and Jacobson (1970). In providing a more general historical perspective, Houle (1976) traced the significance of experiential learning in systems for advanced learning (beginning with the guilds and chivalric systems of the Middle Ages), described the inclusion of practical work for American college students in the late 1800s, and noted the development of a "modern system that includes both theoretical and experiential learning" (p. 30).

In more recent developments, the recommendations of the Carnegie Commission on Higher Education (1971), the Commission on Non-Traditional Study (1973), and the growing interest in adult degree programs led to the organization of The Council for the Advancement of Experiential Learning (CAEL) in 1974. Initially called the Cooperative Assessment of Experiential Learning, CAEL was a research project of the Educational Testing Service and ten participating colleges and universities. In 1976, CAEL became the Council for the Advancement of Experiential Learning, an association of institutions of postsecondary education. By 1980, CAEL reported over 300 institutional members and several hundred individual members. (Many of the CAEL research, training, and publication activities are cited in the paper.) The association has played a significant role in advancing the recognition of learning wherever it occurs and in improving practices in assessing learning. Its growth indicates the expanding interest in assessment during the last decade, with an increasing number of colleges and universities adopting policies which permit the awarding of credit based on prior learning.

The reason for this growth is closely related to other developments in higher education and, particularly, to interests in nontraditional education. The Commission on Non-Traditional Study (1973, p. xv) indicated that non-traditional education encourages diversity of individual opportunity rather than uniform prescription and deemphasizes time, space, and even course requirements in favor of competence and, where applicable, performance. Trivett (1975) related the Commission's views to Glaser's definitions of selective and adaptive educational modes. The selective mode provides for little variation in learning options, while the adaptive mode accommodates a range of learning methods and individual approaches. Individualized degree programs, the use of learning contracts, the encouragement of sponsored experiential learning, and the assessment of prior learning all contribute to a more highly individualized and adaptive learning environment.

The increasing interest in lifelong learning and the expanding enrollment of adults in colleges and universities also lead to enhanced recognition of prior learning. As Avakian (1979, p. 3) noted, the "lock-step" process of education is "inadequate for the returning veteran, for the woman who plans to continue her education after an interruption for motherhood, or for the individual who, having started a small business, wants to study for a college degree on a part-time basis." Such students frequently will have acquired competence through off-campus learning and may be understandably reluctant to enroll in and devote time and money to courses which are repetitious and lack stimulation. It was not suggested that all adult students would receive credit or advanced standing but that they are justified in requesting the opportunity to demonstrate their knowledge.

An additional factor influencing the acceptance of credit for prior learning has been recognition of the facts that colleges and universities are not the only sources of higher learning and that an increasing number of noncollegiate organizations sponsor work which may be directly analogous to that offered within academic institutions. With this development, simple justice suggests that individuals who have completed such work might receive recognition for their learning, if they subsequently elect to complete a college degree.

Agreeing with the importance of these factors, over 60 percent of the institutions surveyed by Davis and Knapp (1978) rated the following as "a primary rationale" for granting academic recognition for nonsponsored experiential learning:

- College level learning should be recognized regardless of where it takes place.

- Adults should not be required to take courses meant to bring about learning they have already acquired.

- Nontraditional educational options and programs serve the diverse needs of students.

Green and Sullivan (1975, p. 261) stated this rationale very well when they drew the following conclusion: "Providing working people with lateral entry into a collegiate program on the basis of documented noncollegiate learning is an eminently sensible idea, for requirements that result in duplication of learning are unwise uses of both human and educational resources."

The Task Force on Educational Credit and Credentials of the American Council on Education (Miller and Mills, 1978) identified additional issues concerned with the use and relevance of educational credentials in the work setting; the need to make the present system more comprehensive; and the desire of students to have their learning, wherever and however attained, incorporated into the credit and credentialing system in order to take advantage of subsequent educational opportunities without duplicating educational experiences and wasting personal resources" (p. 5). The task force concluded that "Postsecondary education's basic system for awarding educational credit and credentials should be retained, but it should be modified to serve more adequately present-day educational and social needs" (p. 3). The fifteen recommendations include statements that postsecondary education institutions "should implement policies and procedures for awarding credit for educational accomplishment attained in extrainstitutional settings ...." (p. 234) and "should give high priority to developing improved, technically sound approaches for evaluating educational accomplishment...." (p. 233).

A final factor which cannot be ignored is that of declining enrollments and accompanying pressures to seek a "new clientele." This economic impetus emphasizes the need for educational institutions which are responsive to those being served and is not necessarily a negative consideration. Carefully developed, implemented, and evaluated, programs for the assessment of prior learning can attract new students, and, along with other adaptations for these students, can be conducted without sacrificing the integrity of the educational environment. In fact, the environment and the educational process may be significantly improved. Subsequent sections of this paper will focus on the processes, programs, and quality concerns which can make this possible.

APPROACHES TO ASSESSING PRIOR LEARNING

As noted, prior learning may include skills, knowledge, and competency in any college-level curricula areas and may have been acquired in a variety of settings. For these reasons, a number of complementary assessment approaches may be useful. The major types are credit by examination, credit according to recommendations for noncollegiate courses, and individualized assessment, chiefly with portfolios. Radloff (1975) and Valentine (1977) have described these approaches and their implications for higher education.

CREDIT BY EXAMINATION

Since the mid-1960s, the College-Level Examination Program (CLEP) of the College Entrance Examination Board (CEEB) has been used widely to evaluate knowledge in general as well as specific subject areas. The CLEP General Examinations in English composition, humanities, mathematics, natural and social sciences, and history are designed to measure college-level achievement in each of these five liberal arts areas. Subject examinations in forty-seven areas are designed to measure achievement in specific college courses. In 1979, over 900 test centers offered the examinations on a monthly basis, and over 1800 institutions granted credit on the basis of CLEP Examinations (College Board, 1979). The norms for these examinations are established by administering the examinations to a large number of students completing the appropriate course(s) or, in the case of the general examinations, their sophomore year in college.

More recently, examinations developed by the University of the State of New York for its Regents External Degree Program have been offered by the American College Testing (ACT) Program as the ACT Proficiency Examination Program (PEP). PEP examinations in forty-seven subject areas include eighteen in business and twelve in nursing. The examinations are given four times each year at test administration centers throughout the country and at DANTES (Defense Activity for Nontraditional Education Support) test centers throughout the world. An expanding number of institutions now award credit on the basis of PEP examinations. The norms for these examinations also are established by administering the examinations to students completing the appropriate course(s).

In addition to the national standardized examinations, a number of institutions employ local faculty-designed proficiency examinations in evaluating student's prior learning in specific academic areas. Even in the absence of formal policies regarding the assessment of prior learning, many institutions permit a student to "test out" of a course through satisfactory performance on an examination.

While many institutions permit students to receive credit by passing particular examinations, a few also allow completion of virtually the entire degree through satisfactory examination performance. These include the New York State Regents External Degree Program, Thomas A. Edison College in New Jersey, and the Board for State Academic Awards in Connecticut. Institutions are encouraged, by both the College Board and the ACT, to establish local policies regarding the award of credit based on examinations, the establishment of minimal passing scores, and the consistency of credit awards with institutional norms.

CREDIT RECOMMENDATIONS FOR NONCOLLEGIATE COURSES

It has been recognized for many years that military training programs are analogous in many respects to traditional college courses. A guide providing postsecondary educational credit recommendations for military training was published by the American Council on Education (1978, a,b,c). Course exhibits in the guide for military classroom courses include the title, course number, location, length, objectives, description of the instruction and subject areas covered, and credit recommendations. Most courses are fulltime and are taught in service schools with a prescribed course of instruction and qualified instructors. Credit recommendations are provided in four categories: vocational certificate, lower-division baccalaureate/associate degree, upper-division baccalaureate degree, and graduate degree. Courses are evaluated by teams

of at least three subject matter specialists nominated by educational institutions, professional societies, and educational and regional accrediting associations. The evaluators observe the classroom and facilities, interview instructors and administrators, and examine course materials. The credit recommendation is developed through the application of evaluative criteria and the use of professional judgment and expertise.

In a more recent extension of this concept, credit recommendations for courses offered by other noncollegiate organizations (businesses, labor unions, professional organizations, cultural organizations, and government) have been prepared by the American Council on Education (1978 d), and jointly by the American Council on Education and the University of the State of New York in the "Project on Noncollegiate Sponsored Instruction" (1976). Using the same evaluation processes and credit categories, a variety of regularly scheduled noncollegiate courses have been evaluated. Institutions may use both sets of guides as standards for credit awards or may refer to the course descriptions and credit recommendations for information while making an individual decision regarding credit for a specified course. In either case, the request for credit, and the ensuing institutional evaluation, is greatly simplified for the student who has completed one or more of the listed courses.

INDIVIDUALIZED ASSESSMENT

Despite the apparent utility and relatively high degree of acceptance of the preceding two approaches, more highly individualized assessment techniques are required when the student's prior learning cannot be readily measured by a standardized examination and was not acquired through an evaluated noncollegiate course. Alternative approaches frequently are required for the evaluation of competencies acquired through work, volunteer, and homemaking experiences; through self-directed independent study; or through noncredit courses for which recommendations are not available. A general process based on student-prepared portfolios has been developed at several institutions and includes the following steps identified in several Cooperative Assessment of Experiential Learning (CAEL) publications (Willingham, 1977):

Identify	Identify college-level learning acquired through life experience.
Articulate	Explain how and what parts of that learning are related to the degree objective.

Document	Verify or provide evidence of learning
Measure	Determine the extent and character of learning acquired
Evaluate	Decide whether the learning meets an acceptable standard and determine its credit equivalence
Transcribe	Record the credit or recognition of the learning.

To these basic steps may be added a preliminary stage of facilitating reentry into the educational setting through portfolio assessment and an intermediate stage of expressing prior learning outcomes (Knapp, 1977).

The frequently used portfolio approach will be described in detail. However, it should be noted that an alternative assessment process, a project-syllabus method in which the student writes a formal paper on a topical subject, also has been advocated (Lupton, 1979). A typical institutional process, incorporating each of the steps in the portfolio approach follows:

1. The potential student becomes aware of the program and, after initial inquiry, receives informational materials.

2. The applicant makes further contact with the program staff, frequently attending an introductory presentation or being interviewed by a staff member.

3. After deciding to prepare a request for assessment, the student receives more detailed guidelines and often participates in a class or seminar program designed to facilitate his/her portfolio preparation. Individual counseling also may be offered.

4. The student prepares a basic portfolio (described in a later section) and submits it to the institution, often with duplicate copies for multiple assessors.

5. Evaluators are selected, normally by the program director, dean, or department chairperson and are provided with the portfolio.

6. Discussions between the evaluator and the student generally are conducted and may lead to requests for further information and the use of added assessment techniques for the measurement and evaluation of the claimed competency.

7. The evaluator makes a recommendation of credit, normally to the program director or dean, who may approve, reject, and/or further review the portfolio.

8. After the credit recommendation receives all the appropriate approvals, the information is forwarded to the registrar for transcription.

Numerous variations exist since the process is designed to operate within the framework of varied institutional settings. Appeal processes may be incorporated and evaluation teams may serve in lieu of, or in addition to, individual expert judges. In the following five sections, the major elements of this process will be discussed in more detail.

Student Orientation: Facilitating Reentry and Portfolio Assessment

Many of the adults who seek assessment of prior learning are returning to formal education after a gap of five, ten, twenty, or more years; a number are entering college for the first time. They will initially seek information about the institution, its degree programs, and the policies and procedures for assessment of prior learning.

They should be provided with clearly written and complete information. A number may seek assistance in career and educational planning. Despite their obvious competence in noncollegiate activities, many will feel considerable uncertainty regarding the assessment of prior learning outcomes. Individual interviews and group orientation sessions can provide opportunities for discussion and explanations to clarify the process and to indicate the supportive services available.

Several possible institutional arrangements designed to aid the student in the assessment process have been described by Knapp (1977). These include:

a. Counseling. A counselor works with the student through each stage of the assessment process but is not responsible for recommending credit. The counselor often performs administrative functions for the program. He or she should be skilled in working with adults and knowledgeable about the institution's programs and policies.

b. Mentoring. A person representing the student's academic area of interest provides guidance in planning and developing a portfolio which relates the student's past learning to his or her other educational

goals. The mentor, who may be a faculty member, a community professional, another student or a recent graduate, generally will not be responsible for recommending credit. One person, acting as an advisor, may serve the function of both counselor and mentor.

c. Portfolio development workshops. Scheduled workshops on portfolio preparation can provide a group setting in which sutdents can exchange ideas. In some respects, it may be more effective than individualized counseling or mentoring. Meeting one, or more frequently, several times and led by a faculty member, counselor, or program administrator, the workshops are designed to assist students in identifying, expressing, articulating, and documenting prior learning outcomes in the form of a portfolio.

d. Self-instructional materials. To be used independently or in conjunction with other services, self-instructional materials on portfolio preparation are highly useful. They may include slide-tape presentations, videotapes, audiotapes, or student workbooks. A comprehensive student guide was published by CAEL (Forrest, 1977). Institutional guides have been prepared by Reidel (1978) at Coastline Community College, by Stephens College (1977), by Heermann (1977) at Sinclair Community College, by Miller (1977) for Vermont state colleges, and by numerous others for local use. Some of the available guides are on display at most assemblies of the Council for the Advancement of Experiential Learning (CAEL). It also may be helpful to provide students with the opportunity to review examples of portfolios, with appropriate permission of the authors.

Portfolio Preparation: Identifying, Articulating, and Documenting Learning Outcomes

In preparing a portfolio as part of a request for credit based on prior learning, the student is expected to reflect on and analyze his or her relevant learning experiences. The learning outcomes are to be presented and verified, in part, through the medium of a well-written, well-organized, and thorough document. A typical portfolio will include the following sections:

- Time line, chronological record, or chronology
- Autobiographical statement
- Statement of goals
- Learning descriptions for each subject area

    Narrative
    Competency statements
    Credit request
    Documentation

The initial time line or chronological record will include only brief notations and dates and will serve primarily to provide a rapid overview and to assist the student in identifying prior learning experiences. Experiences to be listed may include work experience, education, noncredit courses and seminars, volunteer activities, travel, homemaking activities, licenses, awards, professional organizations, recreational activities and hobbies, independent reading, publications, reports, and military experience.

An autobiography, where required, will provide additional information about the student's activities, but it need not provide extensive detail about the learning experiences if a later thematic narrative is to be included. While some institutions have deleted this requirement, others request it, finding that it gives a helpful view of the student's background and interests. Still others place particular emphasis on the autobiography, reporting that the reflection and self-assessment involved in its preparation provide valuable educational experiences.

In a statement of goals, the student usually is asked to express his or her educational, life, and career goals - and to relate the credit request to the achievement of these goals. Both the autobiography and the goals statement (which may be combined) provide an opportunity for the student to demonstrate the significance of prior learning outcomes with a set of overall objectives. These may include degree requirements and institutional objectives as well as individualized goals.

The heart of the portfolio usually consists of the learning descriptions arranged by academic content area. In these sections, the student is expected to state his or her learning outcomes in terms appropriate to the institution, and to demonstrate their achievement through narrative description and/or documentation. The narrative will include a rather

detailed description of the learning experience(s) in this area, including information on activities, training, reading, supervisory responsibilities and advancement (if appropriate), recognitions, and awards. References may be included to substantiate the information provided. A statement of learning outcomes then will be provided, prepared as structured competencies or in a more general form. Both Knapp (1977) and Forrest (1977) provided guidelines on the preparation of competency statements. Depending on institutional policies, statements of learning outcomes may be organized according to: courses offered by the student's institution; courses offered at other regionally accredited institutions; less structured courses such as independent study or field experience; knowledge or competence in general subject areas; broad competency areas required or suggested by the college or as indicated by the student; and learning in general categories. Specificity is desirable in order to communicate effectively the nature of the learning being evaluated and the type of credit awarded. The award of credit in large "blocks" (such as thirty-nine credits in social sciences) does not allow for sufficient precision in either evaluation or reporting.

This section also may include a statement of the credit requested. Determination of the appropriate credit value (if the institution expects the student to indicate a specific request) may be accomplished by comparison with existing courses or with expectations of those who have completed courses or degrees, by analogy with blocks of degree programs, or by review of the competencies expected for graduation.

Documentation providing evidence of the achievement of learning outcomes may include a variety of articles, such as those listed by Knapp (1977) and Forrest (1977): letters of commendation; job descriptions and evaluations; awards and honors; licenses and their performance standards; work samples; work or military records; newspaper and magazine clippings; books, articles, and poems; and photographs, pictures, and music; proposals; and reviews and programs from performances.

Many educators have encountered students who are eager to provide voluminous evidence of their activities. It is usually emphasized that volume is not necessary or desirable and that items of documentation should be selected carefully and clearly as evidence. Hence, the student may be asked to include representative materials, listing others for possible further review during the assessment process. Helpful suggestions on the selection of documentation also were provided by Knapp (1977) and Forrest (1977).

Letters which may help to substantiate many types of learning outcomes are the most common form of documentation used. These may provide either verification of the activity or verification plus an evaluation of the individual's performance. The latter is the most useful. These differ from typical letters of recommendation or commendation. Guidelines on their solicitation and preparation may help to clarify their function (Knapp, 1977).

Overall organization of the portfolio is significant; a general format is provided by most institutions. Students are asked to number all pages, to provide a table of contents, and to carefully relate documentation to appropriate sections of the portfolio. Documentation may be included within each learning description portion or may be gathered in an appendix. Davis and Knapp (1978) have indicated that students spend, on the average, fifty-seven hours preparing a portfolio. It is a challenging process and it can be a significant learning experience.

Measurement and Evaluation of Learning Outcomes

Although considered as separate steps in the overall assessment process, the measurement and evaluation stages may be nearly indistinguishable. In instances in which they are separable, the student may be asked to include evidence of the outcomes of measurement of his or her competencies in the form of a letter, completed form, official certification, or score report (Forrest, 1977, p. 73). More frequently, both the measurement and evaluation stages are completed after submission of the portfolio and with an evaluator or assessor selected by the institution.

The selection of evaluators has been discussed by Whitaker (1976), who defined desirable qualifications for evaluators as subject matter expertise, psychometric expertise, familiarity with the data in a particular case, objectivity, and motivation. He also provided tables matching assessor qualifications with assessment functions and potential assessors with assessor characteristics. Institutional choices for evaluators may include the following options, as listed by Knapp (1977):

- Individual faculty members in a relevant area. This is perhaps the most frequently used arrangement, but it can be the least reliable when only one expert is used. A student often will be evaluated by one faculty member for each academic area or for each course equivalent.

- Departmental faculty committee. This situation can provide more reliable or accurate evaluations when more

than one expert is involved; however, it retains a disciplinary character.

- Permanent faculty committee representing various disciplines. This arrangement is useful particularly in interdisciplinary programs; competencies can be evaluated in a wide variety of academic areas but expert judgment may not be provided for any given area.

- Individual faculty member in a relevant area and permanent faculty committee representing various disciplines. This arrangement provides for both expert judgment and multiple evaluations. Although committee members may not have expertise in given areas, the committee may act as a review group with the benefit of their familiarity with many assessments.

- Outside experts or alumni experts. These experts may include local professionals with strengths in areas to be evaluated but with less knowledge about converting to academic credit. Alumni experts provide the advantage of familiarity with the program.

- Peers (currently enrolled students). They also can offer familiarity with the program and its standards but may not be as well-qualified as experts in the area.

- Assessment team. The team may include faculty, outside experts, alumni, and peers who can provide subject area expertise as well as program knowledge. The team can offer the advantages of several of the preceding options but may be expensive and difficult to arrange. The team also may include the individual student as a self-evaluator.

Techniques for measurement have been described by Knapp and Sharon (1975) and summarized by Knapp (1977). A tabular synopsis of techniques, including examples, advantages, problems, and other considerations also has been prepared by Aaen and Early (1976) and reprinted in a publication by Yelon and Duley (1978). The techniques described include: interviews (structured, unstructured, one-to-one, panel, oral examination); product assessments; simulations (games, case studies, decision-making or in-basket exercises, role playing), performance tests (work samples, performance observations), written responses (essay examinations, objective examinations, reports, journals), and self-assessments (ratings, job inventory checklists, occupational histories, self-assessment tests).

Those performing the measurement are urged to consider the use of more than one technique and also are reminded that one technique may be used to measure several learning outcomes. As Knapp (1977) pointed out, the measurement technique selected should: "(1) ...fit the nature of the learning, bearing in mind its individuality, (2) ...be appropriate to the background and characteristics of the learner, and (3) ...reflect student input and participation in that students should be allowed to suggest methods by which they would like their learning outcomes measured" (p. 45)

In a survey by Davis and Knapp (1978), 106 responding institutions reported that "programs have an average of five procedures available with one or all being used by the assessor, depending on the student and the nature of the learning" (p. 30). The methods used most frequently included product assessment, portfolios, interviews, performance tests and objective tests. A frequently used combination for processes which require the student to meet with one or more evaluators is that of the portfolio plus interviews. During the interview (either structured or unstructured), the evaluator is able to question the student in areas of claimed competence, to verify statements made in the portfolio and, if necessary, to request additional information or evidence. This discussion also provides the student with the opportunity to substantiate and augment the portfolio presentation; it can lead to a stimulating interchange with an expert in the field.

With any measurement technique, assessors should attempt to avoid bias or any of the following common types of error, as listed by Willingham (1977): the tendency to rate too liberally or too harshly; the tendency to avoid the extremes of the scale and rate at the average; allowing an outstanding or inferior trait or aspect of performance to influence the rating of other factors (halo effect); judging the ratee according to a personal stereotype or strongly held attitude; the tendency to prejudge the ratee by an initial impression rather than on the basis of observed performance; the tendency to rate a student more favorably if the student is similar to the rater in background, attitude, or ethnic group; the tendency to rate a student lower than average if the previous ratee was outstanding or to rate a student higher than average if the previous ratee was poor (contrast effect) (p. 23-24).

Transcription or Recording of Credit Awarded

As in other steps in the assessment process, the transcription or recording of credits or competencies may take various forms. However, it should be consistent with the institutional philosophy. Procedures may vary in terms of timing and format. When an assessment is completed, the student is notified of

the results, and the credits awarded may be recorded at that time. Alternatively, the institution may specify that the credit will be recorded just prior to graduation or after satisfactorily completing a given number of courses at the institution. In providing this stipulation, the institution will be attempting to insure that, when the time-consuming assessment process is carried out, the primary beneficiaries will be students enrolled in degree-granting programs in the institution.

Although several types of format may be employed in recording the credit or competencies awarded, any form chosen must provide an accurate and complete record of the learning and must be easily interpreted by a third party. For completeness, some institutions have selected a narrative transcript which may include competency statements or narrative information about the learning experience, the assessment techniques, and the identity and qualifications of the assessor. While desirable in terms of the information presented, the detailed narrative transcript may become quite lengthy and difficult to interpret or to compare with traditional transcripts. Many institutions simply record the equivalent course title or general subject area in a format closely analogous to that used for conventional courses. There is disagreement as to whether the source of the credit should be indicated. Those who feel that it should be specified as credit based on assessment of prior learning argue that this provides necessary information and is comparable to the identification of credit for internships, comparative education, or independent study. Others suggest, particularly when the student is evaluated in terms of institutional course equivalents, that the credit should not be distinguished from that resulting from a standard course. In such cases, the transcript also may include a grade, although a larger number of institutions report the credit without a grade. In a study of transcripting practices in Michigan, it was reported that 93 percent of the reporting institutions (thirty-nine) did not award letter grades (MACRAO-CAEL Experiential Learning Committee, 1979).

In connection with transcription, the transferability of credit for prior learning should be considered. A study of graduate school acceptance of nonstandard assessment and reporting practices by Knapp and Hamilton (1978) indicated that graduate faculty members sometimes are confused by reference to credit for prior learning. They suggested that it is the responsibility of undergraduate institutions to communicate fully with graduate schools. Large numbers of credits by examination or for prior learning in the student's major field could cause problems; however, it also could be an asset if the field emphasizes professional experience. Narrative transcripts were felt to be difficult to use, although explanations of nontraditional programs are needed.

The grade point average was difficult to interpret when large amounts of nongraded work were present. It was suggested that procedures for the processing of transcripts with nonstandard notation need to be developed by the graduate faculty and that both undergraduate and graduate institutions need to work to facilitate a smoother transition for students.

The transferability of experiential credit has been considered in detail in a volume edited by Martorana and Kuhns (1979) which included transcript models, discussions of problems related to articulation and transfer, and suggestions for leadership by faculty members, states, the federal government, and the accrediting agencies.

Other Institutional Policies

In discussing the assessment process, several areas in which institutional policies are necessary have been noted. Other areas in which institutional decisions are necessary, and in which policies should be clearly stated, include:

- Limits on credit allowed. Knapp and Davis (1978) reported that, in institutions responding to their survey, a student theoretically can obtain an average maximum of twenty-six to forty credits through assessment. Actual maxima vary widely and may range from six to 110 credits (semester hours), depending on the institutional philosophy and other degree requirements.

- Age limits. Some institutions have stipulated that only students above a minimum age (often twenty-four to twenty-five) may request credit based on assessment of prior learning. Others have found, however, that it is highly unusual for younger students to submit such requests; they suggest that the limitation is unnecessary.

- Degree areas in which credit is applicable. An institution may limit credit assessment to electives, to a stated portion of a major, or to specific academic areas. The required "residence credit" may include a stated number of credits in the student's major field.

- Recency of learning. Two distinct questions arise in this area - would the learning be accepted if it had been acquired and transcripted at an accredited institution and can the learning be demonstrated at the time of assessment? While policy consistent

with that for the acceptance of transfer credit is desirable, there may be instances in which credit cannot be awarded because it is no longer possible to demonstrate the competence.

- o Appeal processes. A process for appeals should be established prior to initiation of an assessment program, since cases may arise in which there are disagreements; due process procedures consistent with institutional policies should be available.

Some of the issues for which policies are necessary also are discussed by Meinert and Penney (1975).

EVALUATORS AND FACULTY DEVELOPMENT

In all processes for the assessment of prior learning, the evaluator or assessor plays a critical role. Individual evaluators with appropriate subject area expertise are most often selected and provide for relatively efficient processes, despite the disadvantage of possible biases and reduced validity due to the use of a single judge. These disadvantages may be partially offset by the addition of an interdisciplinary and experienced review group, although this will entail further costs in money and time.

Recognizing that few faculty members are trained and experienced in both content areas and the application of evaluative techniques to the assessment of experiential learning, a number of institutions and organizations have provided for the development of new skills through faculty development opportunities. These have included locally directed efforts and on-campus programs as well as nationally planned and conducted programs. A program initiated by CAEL in 1975, with partial support from the Lilly Endowment, provided for the "training of trainers" with twelve two-person teams being trained for one year and agreeing to conduct workshops for others during a second year. A "ripple effect" from this program enabled CAEL to provide a greater array of regional and local workshops. In more recent projects, faculty development workshops and training materials have been provided in connection with the CAEL Institutional Development Program (with support from the Kellogg Foundation) and a Fund for the Improvement of Postsecondary Education (FIPSE) funded project of CAEL has emphasized self-directed faculty development in areas related to experiential learning and its assessment.

The opportunities provided through such programs have been substantial and have helped to offset fears that faculty positions will be threatened by growth in experiential learning programs. Benefits also may extend to traditional instructional areas. New or extended skills in the specification of desired learning outcomes and in the use of individualized assessment techniques may be readily transferred and lead to overall improvements in teaching.

SPECIAL INTEREST AREAS

While many of the publications in this field consider general procedures, programs, and populations, a number address specific groups or areas of concern. Some have paid particular attention to the assessment of women's experiential learning. These have recognized that many of the competencies acquired by women through homemaking and volunteer activities may be creditable but that their equivalence to college-level learning outcomes may be less obvious than, for example, that of a work-related training program. A handbook prepared for women who are entering or returning to college provides information on assessment processes and guides for the evaluation of learning acquired through homemaking and volunteer activities (Ekstrom et al., 1977). Another study presented preliminary guidelines for the assessment of women's experiential learning in the area of women's studies and included sample portfolio materials describing the actual learning experiences of five women (Sackmary and Hedrick, 1977).

The literature also includes several articles which discussed credit for prior experientail learning in specific curricular areas. Student guides for documenting experiential learning have been prepared by Coastline Community College in office occupation areas including administrative secretary, accounting, office practice, management and marketing, sales and marketing management, personnel associate, and travel agency operation (Coastline Community College, 1979 a, b, c, d, e, f, g). The practices of health administration programs granting credit for prior learning have been discussed by Kleppick (1979). An associate degree program for human service workers, with consideration of the student's prior experiential learning, was described by Duncan et al. (1978). Other researchers have considered credit based on noncollegiate experience in vocational teacher education (Gutcher and Mast, 1977). The assessment of aeronautical educational experiences has been discussed by the Aviation Education Review Organization (1973). Assessment in eight occupational fields (accounting, agribusiness, data processing, day care, electronic technology,

management, police science, and secretarial science) was discussed by Bergquist et al. (1974) and Sharon et al. (1974). Sharon (1977) also prepared a CAEL handbook on the assessment of occupational competence, providing examples of a work assessment model for data processing, law enforcement, and secretarial science.

COSTS AND FEES FOR THE ASSESSMENT OF PRIOR LEARNING

Although the literature on costs and fees for the assessment of prior learning is not extensive, it is a subject of increasing concern. In early studies, Kelley, MacTaggart, and Spencer (1976) described cost analysis in a private institution. Kray and Hultgren (1976) described the financing of assessment in a public community college. Considering direct and indirect costs, Kelley and others computed costs per assessment credit at between 26 and 74 percent of those per conventional class credits. The large variation was due to differences in program size (with lower costs when more assessments were performed) and in number of credits awarded (with lower costs per credit as the volume of assessed credits increased). Using a slightly different approach, Kray and Hultgren determined fixed and variable costs to calculate a cost per credit by assessment of 25 percent of the cost per credit in the traditional college program. They noted that the ratio will vary depending on the number of students assessed, the number of credits sought, institutional procedures, and costs per credit in the traditional program. However, both studies supported the generally held idea that the cost of assessment should be less than that of teaching and assessment in a traditional classroom. They helped to reduce fears that the highly individualized nature of assessment processes would lead to costs higher than those of traditional classroom instruction.

The analysis by Kray and Hultgren assumed payment to faculty evaluators on the basis of the number of hours spent (at $8.13 per clock hour). Kelley and others based their analysis on negotiated overload payments. A number of institutions have adopted policies for the payment of a flat fee to the assessor for each evaluation completed on an overload basis (typically $20 to $30). Others consider this activity to be part of a normal load. Faculty payment could be determined on the basis of credits requested rather than on the number of credits awarded.

A more general discussion of economic considerations in assessment was provided by Jamison and Wolfe (1976), who provide background information on economic analysis, the

determination of resources and costs, financing prices, and budgeting. Their report also included technical notes on total, average, and marginal cost, fixed and variable costs, and capital costs. Throughout their study, applications of the processes for the assessment of experiential learning were described.

More recently research on assessment costs has been reported by Woods (1978), who surveyed a number of institutions to determine the average faculty and staff time involvement, plus other costs incurred. He found that an average of 11.32 hours per applicant was expended in institutions not requiring a portfolio preparation seminar and 30.7 hours per applicant in institutions using such a seminar. Advising and counseling account for 3.73 hours and 5.50 hours, respectively. Woods provided a sample worksheet for cost calculations which included other direct and indirect costs as well as personnel. He pointed out that fees or tuition received for a seminar, if held, also must be taken into account. Considering personnel time alone, the seminar might be seriously questioned; however, other positive aspects also should be considered.

A more comprehensive approach, including cost analysis, was taken by Palola and coworkers (1977 a, b) at Empire State College. Their work on Program Effectiveness and Related Costs (PERC) focused on an evaluation of educational effectiveness and analyzed cost data with respect to effectiveness.

The economic impact of credit by examination was explored by three educational economists in a publication edited by Valley (1978). Kendis, Klees, and Wagner reviewed costs and benefits, identified major issues, and suggested further research studies.

Institutions engaged in the start-up of programs for crediting prior learning may find the preceding publications useful for the analysis of program costs. Program planners may also wish to consult MacTaggart's syllabus on cost effectiveness (1979), a manual for self-directed learning for professionals who are establishing models or cost analyzing their own programs. However, it may be necessary to establish initial student fees based on an estimation of costs for a given assessment process. According to respondent in the Davis and Knapp survey (1978), the most common fee arrangements are as follows:

- o Flat assessment fee. The average fee was $121. This approach was used mostly by public and private four year colleges.

- Fee based on number of credits requested by the student. The average fee was $12 per credit. This method was used by two year public institutions.

- Fee based on number of credits awarded to student. The average fee was $79 per credit. This approach was often used by private institutions.

- Fee based on number of subject areas to be evaluated. The average total was $287. This method was reported by only 5.4 percent of the respondents.

- Fee based on amount of time spent by the assessor. The average fee was $15.50 per hour. This method was reported by only 4.3 percent of the respondents.

An additional 16.1 percent indicated that no assessment fee was used; 10.8 percent reported the use of a combination of the above fee structures. Of the approaches listed, a fee based on the number of credits requested or the number of subject areas to be evaluated can be most directly related to institutional effort and costs and may be combined with a flat application fee or used in a sliding scale where indirect costs are met by higher fees for smaller requests or those involving fewer subject areas.

Institutions may seek to establish fees which will allow a developed assessment program to be self-supporting or they may elect to provide for financial support. In either case, funding adequate to provide for an academically sound program operation must be provided or, as Bowen (1973) suggested, performance will inevitably be hurt.

QUALITY ASSURANCE AND PROGRAM EVALUATION

CONCERNS AND FEARS

The practice of awarding credit on the basis of assessment of prior learning has been widely, but certainly not universally, accepted. Those who object often express fears that institutions will "give away" credit, that degrees will be "watered down," or that, in a struggle for survival, colleges and universities will advertise programs of questionable quality solely as a marketing and recruiting tool. These fears are probably healthy ones. They point to the need for quality control and the maintenance of sound academic standards. Sawhill has stated that "the first step in assuring quality in the field of lifelong learning is for each institution to police what it offers to adults according to the same standards it applies to more traditional programs and to monitor its promotion of adult programs by the criterion of 'truth in packaging' (1978/79, p. 7). Sawhill also indicated that "when adults can demonstrate that certain of their experiences are comparable to existing courses at an institution, the practice of awarding credit is appropriate and respectable. When credits are simply dangled in a bid for student dollars, without a firm academic basis, the practice is disreputable" (p. 7). With appropriate quality controls, credit for prior learning can be a strong and rigorous element of an academic degree program, providing well-deserved recognition for learning which takes place outside of the college environment.

Critics also express the concern that faculty members will be displaced if students receive credit through evaluation instead of through classroom participation. In response, it should be pointed out that faculty members typically participate in the assessment process and, thus, continue to play a significant,

although slightly altered, role. It also has been substantiated by evidence collected from students in at least one degree program (The Board of Governors Bachelor of Arts Degree Program, 1978) that a significant number of students entering programs which permit the award of credit based on prior learning would not have completed a degree otherwise. Many of the students receiving credit would not have enrolled in the classes but continue their studies in more advanced classes.

Faculty members also may react defensively, fearing threats to standards and values. However, Valentine (1977) suggested that the challenges implicit in alternative means of granting credit "may stimulate the faculties of some colleges to examine critically the assumptions underlying their curriculum, their practices, and their approach to standards" (p. 8). If this occurs, an initial concern will have been translated into a very positive outcome.

Another point of view is that degrees and credits "must apply to structured academic learning experiences and not to the accumulation of information, regardless of how learned" (Sam, 1979). While Sam did not question the competencies acquired through nonacademic experiences, he suggested that awarding academic credit for such learning is unnecessary and undesirable and that it may lead to programs of diminished quality. In response, it may again be suggested that a sound program for assessment of prior learning need not reduce degree quality and that it is an institutional responsibility to establish criteria and standards appropriate for a given program.

QUALITY ASSURANCE

It has been noted above that quality assurance procedures are vital elements of a program for the assessment of prior learning. At the same time, educators have found it difficult to formulate a concise definition of quality assurance. In a very general sense, the term may suggest monitoring to ensure that academic standards and institutional values are maintained; more specifically, it may define a set of procedural aspects of program management.

Keeton (1978) has suggested that institutions can improve their own performance and can increase the confidence of others by making the program rationale clear, by clarifying the intended outcomes of programs and assessing the actual results, by establishing and refining a system of quality assurance, and by documenting and communicating program outcomes. Quality assurance may refer both to internal controls and to external monitoring and accreditation.

In seeking to assure quality, program planners and practitioners are advised to design and implement the procedures and guidelines suggested by Willingham (1977). The principles presented, drawn from earlier CAEL publications, provide a useful set of guidelines for assessment and administration of such activities. Willingham stressed the need for institutions to clearly articulate the program rationale, to define institutional policies regarding assessment, and to clearly state degree and program requirements. In a section on quality assurance, he recommended that professional standards be fostered, that there be systematic review of the assessment procedures and results of assessment, that there be clear administrative responsibility for monitoring quality, and that periodic checks be made to insure adherence to institutional guidelines.

A number of the significant elements in quality assurance were discussed in other sections of this paper. These include the selection of well-qualified assessors, faculty development and training in assessment techniques, the provision of faculty and student guides, the definition of standards and criteria, the conduct of studies on outcomes, and the reliability and validity of assessment procedures. Additionally, it is most important that the institution foster a sense of quality in all aspects of its activities, that expected learning outcomes and degree requirements be clearly defined, and that students themselves be encouraged to seek and uphold quality in their own educational programs.

STANDARDS AND CRITERIA

Valid and reliable processes for the assessment of prior learning require the establishment of appropriate criteria or standards defining the types and levels of competence or learning which may be recognized with college credit. While this may seem to be obvious, and is seldom disputed, it also is relatively seldom that criterion standards or behavioral objectives are explicity presented. The terms "criterion standard" and "performance standard" have been defined to refer to both the "criteria for deciding what type of learning will be eligible for college credit and the level or degree of evidence of student learning that will be considered adequate for the award of a specific amount of credit" (Fremer, 1976, p. 17). The properties of good standards and the setting of performance standards have been discussed both by Fremer (1976) and Reilly (1977); they also both refer the reader to further technical resources.

Standards may be expressed generally in the form of stated requirements and expectations or may be indicated more

specifically through various forms of competence scales, rating scales, or the identification of critical behavior. Examples of general criteria, adopted by a number of institutions, were contained in CAEL publications for faculty members and students (Knapp, 1977; Forrest, 1977). They suggest that a creditable prior learning outcome should: lend itself to measurement and evaluation; imply a conceptual and a practical grasp of what was earned; be at a level of satisfactory undergraduate or graduate achievement as defined by the institution; be applicable outside the specific context in which it was learned or serve as a base for further learning; indicate that learning is relatively current; and show some relationship to the student's degree goals, lifelong learning goals, or overall education.

Specifications of this sort are, of course, subject to institutional decisions regarding applicability to local programs. In addition, it is helpful to both students and evaluators to specify more precise criteria for credit in specific academic areas. In the case of an institution with competency-based programs, the established performance standards or competencies provide the basis necessary for the assessment of nonsponsored experiential learning. When such standards have not been stated previously, their development for the assessment process also may provide a valuable source of information on courses and programs for all those engaged in the selection, planning, or review of the courses and programs. Efforts at standard-setting may begin with the preparation and collection of course syllabi which include statements of expected outcomes or competencies. Analogous outcomes and desired competencies similarly may be stated for programs. Alternatively, a program-mapping technique, as described by Cook (1978) may lead to the specification of standards or criteria. Evaluators and/or faculty members also may prepare appropriate standards for a general subject area or may develop detained rating scales for particular competency areas. Published examples of these include scales for writing competence (Reilly, 1977) and for the competence in leadership of volunteer organizations (Pendergrass, 1977); work experience checklists also have been provided for secretarial, data-processing, and law enforcement occupations (Sharon, 1977).

In the absence of explicity specified standards, it appears that evaluators generally compare demonstrated competencies acquired through prior learning to their expectations of traditional classroom students.

ACCREDITATION

The assessment of nontraditional education - with concerns for both quality assurance and accreditation - was studied extensively in a national project of the Council on Postsecondary Accreditation (COPA). As reported by Andrews (1979), general strengths of nontraditional education included the support of concepts by educational administrators, the quality of programs offered, and expanded educational services for the older, often employed student. Problems included institutional movement into new programs without complete development, the "entrepreneur with charlatan motives" (p. 343), and the use of traditional degrees without adequate attention given to their normal content. It was noted that most institutions involved in nontraditional education are accredited and that the regional accrediting associations have not had procedural difficulties in accomplishing their accreditation. It was recommended that the normal process-oriented model of evaluation be modified, changing to a process performance model which would accommodate both traditional and nontraditional programs. A number of recommendations, relating to both quality assurance and accreditation, were directed toward postsecondary education in general, nontraditional education, accrediting associations, and the Council on Postsecondary Education. For nontraditional education, it was recommended that educators work to "integrate the nontraditioanl movement into the mainstream of conventional institutions and programs"; that nontraditionalists exercise caution in establishing external relationships, maintaining unquestionable institutional integrity; and that adequate processes and support components be developed and implemented (p. 353-354). While generally written for nontraditional programs, the recommendations were clearly appropriate for programs for the assessment of prior learning.

Thrash (1978) also emphasized that there should not be a dichotomy between traditional and nontraditional programs and separate accreditation processes for each. Rather, "... it (the accrediting commission) must develop a series of evaluative procedures that can be applied to all institutions to assess effectively the educational quality of those institutions, whatever the learning options offered" (p. 463). Thrash also has discussed the responsiveness of the regional accrediting associations to the assessment needs of nontraditional programs, describing the accreditation process (Thrash, 1979 a) and the development of a sequential evaluation process for institutions with a number of off-campus programs (Thrash, 1979 b).

PROGRAM OUTCOMES AND RESEARCH

Since the early 1970s, the number of institutions offering credit for nonsponsored learning has increased rapidly. This option also is under consideration in many colleges and universities which currently do not have such programs. A 1979 directory, acknowledged to be incomplete, identified 267 institutional programs for prior learning credit (Beecham, 1979). The institutions listed represent forty-two states, offer associate and/or bachelor's degrees, and are members, recognized candidates for accreditation, or applicants for candidacy in one of the regional accrediting associations. A recent study reported on practices and policies for academic recognition of prior learning at 211 institutions, with 143 reporting the use of portfolio assessment (Knapp and Davis, 1978). In contrast, an inventory of external degree programs prepared by Valley (1971 a,b) a few years earlier reported on a total of twenty-one undergraduate programs and twenty-five proposed programs (both undergraduate and graduate).

As programs incorporating the assessment of nonsponsored experiential learning have developed and expanded, the need for research on program outcomes has been clearly recognized. Several research and evaluation projects have been undertaken to provide information on the students, their academic programs, and their progress after graduation. The largest of these, conducted by Sosdian (1978) and Sosdian and Sharp (1977, 1978 a,b) surveyed program directors and graduates of 244 external degree programs in 134 institutions. The sample included more than 3,400 graduates of programs which had graduated students in 1975 or earlier. Most of the programs surveyed included provisions for the assessment of prior learning. The findings indicated that nearly all external degree graduates who sought admission to more advanced programs were able to enroll, and that graduates experienced job-related benefits. These results were interpreted as positive signs and indicated that early efforts in program design had led to the development of successful programs which met their planner's goals in providing educational options for adult learners. Sosdian and Sharp (1978 a) concluded that "it seems clear that credentialing benefits can accrue to individual external degree program graduates. On this basis these programs should be considered as legitimate educational alternatives by prospective students, their sponsors, and educators" (p. 124).

At approximately the same time, in an evaluative study by the Board of Governors, Bachelor of Arts Degree Program in Illinois (1978), data were analyzed for nearly 6,000 students and over

1,500 graduates. Similar findings regarding student characteristics, goals, and program outcomes were reported. This study also noted that the average student was thirty-six years old, that most were employed, three-quarters were married, a quarter were black and almost half were women. They came from a wide variety of backgrounds and many had attended more than three other colleges (although some had no previous college experience). Over three-quarters of the graduates received credit for prior learning, earning an average of thirty-seven semester hours. Credit for prior learning was awarded in all major academic areas, with the largest number of awards in business and management, education, health professions, and social sciences. Approximately 12 percent received credit by proficiency examination and 22 percent for military service. Both graduates and their employers were satisfied with their degrees; graduates indicated substantial achievement of their career, educational, and personal goals. Nearly half of the graduates applied to graduate schools. Of these, over 90 percent had been admitted at the time of the study.

Additional studies on this program were conducted during 1978-79 as part of a project on the evaluation of nontraditional programs. In these studies, information was gathered on faculty attitudes, persons who inquired but did not enroll, students who did not complete the degree, as well as on enrolled students and graduates. During 1979-80, similar studies were conducted at seven additional institutions. The research efforts included the testing of a sample of graduates, using the American College Testing (ACT) Program and The College Outcome Measures Project (COMP) examinations, designed to "measure and evaluate the knowledge and skills that undergraduate students are expected to acquire as a result of general or liberal education programs and that are important to effective functioning in adult society" (Forrest and Steel, 1978, p. 1). A product of this study also has been a useful annotated bibliography on the evaluation of nontraditional programs (Gonzalez and Murphy, 1979). The project codirectors expect to provide a model which will be useful in future evaluation projects (Murphy and Pringle, 1979).

The characteristics of students who received credit for prior learning also have been reported by Spille and Hartley (1975) at the University of Wisconsin-Green Bay, and by Lutz (1978), who described enrollees in Connecticut's extended degree program, the Board for State Academic Awards. The experiences of graduates of nontraditional programs have been discussed by Losty and Gardinor (1978) at Stephens College and by Beshiri (1978), who compared graduates of traditional and nontraditional programs at Florida International University. Palola and Bradley (1973) and Lehmann (1974) reported on studies of early

graduates of Empire State College. A study on faculty attitudes toward a nontraditional program was reported by Nolan, Anderson, and Mowrer (1977).

The need for research on the reliability and validity of the assessment process has been noted previously. It was the recognition of this need which led CAEL to undertake such research in 1975-76. During 1974-75, a number of working papers and institutional reports were prepared; a validation plan included review and experimental use of these documents, as well as field research providing empirical studies of assessment principles and practices. The results of the study were reported in a comprehensive publication by Willingham and associates in 1976. Four major areas were investigated, with twenty-four participating institutions serving as field research sites. These areas were assessment of interpersonal skill, assessment through the portfolio, assessment of work competence, and the use of expert judgment. In the area of portfolio assessment, multiple evaluations of local and illustrative portfolios were completed. Results indicated moderate agreement among faculty members within institutions in their recommendations for credit, although institutions differed widely in their credit recommendations. There was mixed agreement among faculty in institutions as to what types of learning deserve college credit; some institutions tended to be more conservative than others. Colleges were similar in their requirements for documentation. Pre and postevaluation testing of students indicated that those who participated in the portfolio assessment process gained in self-awareness concerning their learning and their goals.

These field research efforts not only provided some indications of the validity and reliability of portfolio assessment within institutions, but also helped to identify areas of ambiguity which needed more attention. It was suggested that systematic studies and procedures for monitoring the assessment of experiential learning should be initially undertaken at the institutional level. It also might be noted that a similar study, if conducted now, could demonstrate the benefits of increased experience and sophistication in the preparation and assessment of portfolios. Institutional-level research on the assessment process and its outcome also has been reported by investigators at Alverno College (Loacker, 1976), Antioch College (Churchill, 1976), and Thomas A. Edison College (Jacobs, 1976).

FUTURE DIRECTIONS AND IMPLICATIONS

The award of credit for prior learning is now well established as a practice in a number of institutions. The practice has expanded greatly during the 1970s and continues to grow as we enter the 1980s. Programs exist in many stages of development, from initial planning to smoothly-implemented, mature systems. Directions and change during the next decade and beyond may, therefore, seem uneven. However, program planners and practitioners will have the benefits of a considerable body of literature and the counsel of experienced persons as they initiate and implement new programs.

It is clear that both quality assurance and accountability will be increasingly important in higher education. Those involved with nontraditional programs and the assessment of prior learning must maintain their emphasis on learning outcomes and continue to improve and monitor their evaluation procedures. Additional research on assessment and on program outcomes is needed, as are studies on costs, on "stop-outs" or "drop-outs", and on student performance after the award of credit for prior learning.

The importance of lifelong learning and of access to education has been stressed by many educators. Programs which provide options for the assessment of prior, or noncollegiate, learning can stimulate the college participation of adults and can provide significant services to adults in a learning society. As Cross (1978) indicated, institutions are improving adult

access to higher education by making arrangements for appropriate schedules, locations, and services. She also wrote that "There is widespread agreement now that traditional time-serving measures of learning are not adequate for the learning society" (p. 45). Cross concluded that a desirable development would be a central assessment agency or a network of assessment centers which would evaluate competencies and report to institutions designated by the candidate. A proposal such as this one is certain to raise objections; nevertheless, it is pointed out that institutions retain the responsibility of setting standards for acceptance. Centralized assessment services have, in the past, met with opposition. Some may have been questioned justifiably. Given adequate quality assurance measures and responsiveness to both individual and institutional needs, they do represent a possibility for the future.

To fully serve adult learners, additional needs exist for the provision of information on learning resources. Educational Information Centers (EICs) and educational brokers help to meet these needs. Expansion of these services will be necessary in order to provide adequate information to adults as consumers. Additionally, directories listing programs for the assessment of prior learning, such as one published recently by CAEL (Beechem, 1979) can be made available through public libraries and employers as well as colleges and universities. Popular magazine and newspaper articles can help inform adults of the opportunities available. In a relatively new area, CAEL has initiated efforts at combining educational and career-planning approaches, modifying existing computer-based career information systems. Interactive computer systems also may be used to assist students with portfolio development and to provide access to information on institutional assessment programs and their requirements.

Experiential learning also serves as an important connection between work and education, significant in the implementation of policies for lifelong learning. Cooperation between educational institutions and those who provide learning resources in other settings is becoming increasingly important. The recognition of learning, wherever it occurs, and the enhancement of the quality of that learning and of its evaluation can help to integrate education with work and leisure.

In oder to attain the goals of the learning society, state and federal policies also need continued modification to effectively serve the needs of the adult, often part-time, student. Funding formulas and financial aid packages should encourage the flexibility required by nontraditional students and should accommodate options for the assessment of prior learning without penalty to the student or institution. Specific institutional

policy issues have been addressed previously. In a more general sense, institutions may wish to review their overall philosophy with regard to its impact on adult students.

Projections of declining undergraduate enrollments of eighteen to twenty-one year olds also have been emphasized, and have had considerable impact upon educational planning. The final report of the Carnegie Council on Policy Studies in Higher Education (1980), Three Thousand Futures: The Next Twenty Years in Higher Education, predicted enrollment declines of 5 to 15 percent between 1980 and 2000. The report suggested that although severe problems lie ahead, reasonable solutions exist for most of them. Adult students may not save the institutions which are most severely affected by declining enrollments during this period; however, the encouragement of adult enrollment and degree completion can help to offset the losses and provide part of the solution.

In addition to providing a service to those adults who seek academic credentials and attracting such adults to institutions which seek a "new clientele," programs for the assessment of prior learning can exert other significant influences on higher education (Shulman, 1978). In an analysis prepared for the American Council on Education Task Force on Educational Credit and Credentials, Ferguson (1978) stated that "Recent developments in postsecondary education portend significant changes in the future. It may well be that postsecondary institutions, as they face up to the needs and demands of their students and potential students, will also increase their attention to the evaluation of student achievement of intended outcomes of their educational programs" (p. 129). The assessment of prior learning is based upon such evaluation. The questions and concerns it raises are important in determining the future directions of postsecondary education.

APPENDIXES

Many of the most useful publications on experiential learning and credit for prior learning have been published by the Council for the Advancement of Experiential Learning (formerly Cooperative Assessment of Experiential Learning) and, since 1978, by Jossey-Bass in its New Directions for Experiential Learning sourcebook series. These publications are described briefly in the following listings.

APPENDIX A: CURRENT CAEL PUBLICATIONS

The following publications are available from CAEL, American City Building, Suite 212, Columbia, Maryland 21044

1. CAEL Literature Guide, Jane Porter Stutz and Joan Knapp, 1978.

   There is a large and diffuse body of literature somehow related to experiential learning, but relatively few, mostly recent, items deal specifically with the theory and practice of assessing experiential learning. This annotated bibliography contains a number of items that CAEL has found particularly helpful in one connection or another through its work in recent years. They cover a variety of topics, including some important literature with which practicioners in this area are not typically familiar, but most of the references deal specifically with the particular types of problems on which CAEL has placed special emphasis.

2. CAEL Literature Guide Supplement, Jane Porter Stutz and Joan Knapp, 1978.

   An update to item No. 1 (May be purchased separately or in combination with item number 1.)

3. CAEL Directory of Members

   Each year CAEL produces an updated annual Assembly Directory. It lists all current institutional members, including official representatives and addresses. Associate members are also listed.

4. A Compendium of Assessment Techniques, Joan Knapp and Amiel I. Sharon, 1975.

   There are a wide variety of different assessment techniques that might be appropriate to different types of experiential learning. This monograph includes sections on performance tests, simulations, interviews, ratings, product assessment, etc. Each section orients the reader to one of these general types of assessment and then provides brief illustrations of different applications. This overview cites a number of references that provide more detailed information concerning each assessment method.

5. Implementing a Program for Assessing Experiential Learning, Edited by Hadley S. Nesbitt and Warren W. Willingham, 1976.

   This report contains selected material prepared by ETS staff members and background information for the Operational Models project. It gives a general overview of the main issues addressed in the project and provides reference information that can help other institutions work on an operational model. The report contains three papers: "Developing an Operational Model for Assessing Experiential Learning," by Warren W. Willingham and Kurt F. Geisinger; "Setting and Evaluating Criterion Standards," by John Fremer; and "Assessment and Accreditation: Economic Considerations," by Dean T. Jamison and Barbara Burgess Wolfe.

6. Principles of Good Practice in Assessing Experiential Learning, Warren W. Willingham, 1977.

   This booklet provides a single-source overview of important principles of good assessment practice as represented in the CAEL reports which were current in 1977. Procedural guidelines are presented in outline form with reference to fuller discussion in other CAEL publications.

7. Teaching and Assessing Interpersonal Competence - A CAEL Handbook, Paul Green, Thomas F. Donion, and Urban Whitaker, 1977.

   It is increasingly recognized that interpersonal competence deserves a prominent place in many curricula because of the importance of interpersonal skill in applying theoretical learning in practical situations. This Handbook is designed to facilitate the teaching, learning, and assessment of college creditable interpersonal competence acquired in experiential situations. Procedures are suggested for identifying and categorizing interpersonal skills, articulating them to students' goals, discovering

and utilizing potential experiential learning situations, and assessing the learning of interpersonal skills for academic credit. A core program of assessment strategies is outlined emphasizing the need for multiple techniques.

8. Assessing Prior Learning - A CAEL Handbook, Joan Knapp, 1977.

   Different institutions assess and credit prior experience in different ways. One of CAEL's primary objectives is to develop sound general procedures for such assessment and to suggest alternative ways that important basic steps can be carried out. This handbook is a good illustration of that developmental objective. It presents a model for portfolio assessment that incorporates eight stages - (1) facilitating the construction and assessment of a portfolio, (2) identifying significant prior experiences, (3) expressing the learning outcomes of prior experiences, (4) articulating prior outcomes to educational goals, (5) documenting the learning experience, (6) measuring the extent and level of prior learning outcomes, (7) judging the learning outcomes, (8) and evaluating prior learning outcomes for awarding credits or recognition. At each stage alternative practical procedures are suggested. (Companion to item number 13.)

9. Assessing Occupational Competencies - A CAEL Handbook, Amiel T. Sharon, 1977.

   This handbook describes a model for assessing specific competencies acquired in work situations that are relevant to occupationally oriented degree programs. The model is designed to help a college specify the kinds of competencies acquired in various occupational settings, to define the learning objectives of occupational and career programs, and to translate the competencies into college credit where appropriate. The report describes the application of the model to three fields (data processing, law enforcement, and secretarial science) and shows how the model can be applied to other occupations. Prototype assessment instruments and procedures are included.

10. Expert Assessment of Experiential Learning - A CAEL Handbook, Richard Reilly, Ruth Churchill, Arnold Fletcher, Myrna Miller, Judith Pendergrass, Jane Porter Stutz, and John Clark, 1977.

Due to the highly individualized character of most experiential learning, assessment usually relies upon the informed judgment of an expert. This handbook provides principles and guidelines for the use of expert judgment The report deals with a number of basic issues that apply to expert judgment generally; e.g., the role of the expert in defining criteria and structuring the assessment procedure so that it will be as reliable and valid as possible, the importance of establishing standards that are defined as systematically and objectively as possible, and the manner in which common rating errors affect the credibility and the fairness of assessment. These basic principles and steps of assessment are illustrated and discussed in a series of chapters covering the use of judgment in four areas: interviews, product assessment, performance assessment, and the assessment of written material. These chapters include a number of practical hints and suggestions for the improvement of assessment as well as problems and pitfalls to avoid. Several applications are described in detail.

11. College-Sponsored Experiential Learning - A CAEL Handbook, John Duley and Sheila Gordon, 1977.

This handbook is designed for faculty as well as other professionals concerned with developing effective programs of off-campus experiential learning and assessing the outcomes of these programs. The authors provide theoretical background for nonsponsored off-campus programs, but place the major emphasis upon pragmatic problems of defining educational objectives, developing job placement opportunities for students, and preparing those students for effective learning experiences. Special emphasis is given to the problem of monitoring experiential learning as it proceeds and integration of that learning following the off-campus experience. The material provided and the steps suggested are articulated in the CAEL Student Guide, College Sponsored Experiential Learning. (Item No. 14).

12. Learning and Assessing Interpersonal Competence - A CAEL Student Guide, Paul Breen, Thomas F. Donion, and Urban Whitaker, 1977.

This student guide is a companion volume to the handbook, Teaching and Assessing Interpersonal Competence (Item No. 7),

and it is based on the same theoretical framework and contains some identical sections. The special contributions of the student guide are chapters on planning for experiential learning and preparing for assessment. Detailed suggestions are offered for preparing a life goal autobiography, articulating personal goals to interpersonal development, and selecting an experiential learning site.

13. Assessing Prior Learning - A CAEL Student Guide, Aubrey Forrest, 1977.

    It is typically the adult student who petitions for college credit based upon prior experiential learning, and this student guide is directed to that audience. The purpose is to assist such adults in maximizing the value of their prior learning in relation to educational goals and successfully obtaining appropriate credit. The reader is led step by step through the process of identifying learning outcomes, relating them to educational goals, documenting experience, measuring learning outcomes, and requesting credit or recognition. (Coordinated with item number 4).

14. College-Sponsored Experiential Learning - A CAEL Student Guide, Hodley Nesbitt, 1977.

    This student guide is designed to help students make the most of the off-campus experiential learning. It is organized around eleven basic steps. These include: selecting and preparing for the learning experience, involvement in the work situation, and integrating the learning derived from the experience into an ongoing academic program. Charts, checklists, and worksheets serve as aids for dealing effectively with each of the eleven steps. (This Guide is coordinated with item number 11).

15. Developing Program Maps, Module 1, Marvin Cook, 1976.

    CAEL holds that a program unexamined as to outcomes is less likely to be sound than one with clarified outcomes. This module is designed to train faculty and staff as to how to develop program maps of their academic programs. The maps are used in many ways, including identifying "GAPS" in existing college programs, designing individual degree programs, developing extended degree programs, developing new departmental programs, and providing a rational basis for awarding credit for prior learning. Many examples of program maps in a number of academic areas are included.

16. Developing Learning Outcomes, Module 2, Marvin Cook, 1973.

This module is designed to be used in faculty training workshops focusing on clarifying the description of their program learning outcomes. Specific steps illustrate a very effective and pragmatic way of developing clear learning outcomes for academic programs. The examples include many academic areas both in the humanities and the sciences. The procedure and examples illustrate the usefulness of the approach for on-campus programs as well as off-campus learning experiences.

17. Efficient Evaluation of Individual Performance in Field Placement, Stephen L. Yelon and John S. Duley, 1978.

One of a series of guides for the improvement of instruction that is published by Michigan State University, this guide is the result of a cooperative effort between the Learning and Evaluation Service at MSU and CAEL. The guide contains tested ideas that may be of use to instructors who are responsible for supervising and evaluating real-world experiences given to students. It is designed to help coordinators and supervisors of field experience activities save time and energy when evaluating student performance. One of the major purposes of this publication is to encourage faculty to go beyond immediate priorities and spend time and energy to create a time-saving, efficient, systematic evaluation procedure.

18. The Practice of Experiential Education: A CAEL Status Report, Leta Davis and Joan Knapp, 1978.

This publication includes the summarized findings of a two-phase survey conducted by CAEL in early 1978. Phase one included questionnaires sent to all CAEL member institutions as well as a sample of non-CAEL institutions. The questionnaire was designed to collect general information about experiential programs. The second phase of the survey collected additional information from only CAEL institutions. This report deals primarily with the data analyzed from the second phase of the study. The first section of the report describes how CAEL members compare with other institutions of higher education. The following sections deal specifically with information gathered about sponsored experiential learning programs (Section 2) and nonsponsored experiential programs (Section 3). The information within each section is organized in a question and answer format.

19. Lifelong Learning: Purposes and Priorities, K. Patricia Cross, 1979.

The author, a Distinguished Research Scientist at Educational Testing Service, refers to the current times as the "renaissance of education for adults" because, she says, "It represents a rebirth of attention to the life of the mind that is as significant to the twenty-first century as the original intellectual renaissance was to the fifteenth century." Researchers estimate that between 80 and 90 percent of the adult population carry out at least one self-directed learning project each year and that the typical adult spends about 500 hours per year learning new things from a variety of sources (Tough, 1977). This eighteen page paper was prepared for a Sectional Assembly of CAEL in early 1979. Dr. Cross concludes by stating that she views the role of educators as to help people of all ages develop a taste for good learning experiences and to choose from a wide variety of learning resources those which best meet their needs at the time."

20. Cost Effectiveness: A CAEL Syllabus for Professionals, Terrence MacTaggart, 1979.

This syllabus is designed for those program managers, faculty, and student advisors who feel the need to learn how relevant economic concepts can enrich their decision-making skills. The first part of the syllabus suggests a path of study which will enable the learner to analyze, compare, and evaluate alternative programs in light of the principles of cost effectiveness. The second section assists the learner in developing an alternative choice model for the prospective student who must select among educational options. The syllabus emphasizes the value of economic concepts in criteria which bear on the decision process.

21. The Self-Directed Educator: A CAEL Syllabus, Mark Cheren, 1979.

Continuing professional development requires the performance of a difficult and complex set of tasks. This syllabus acknowledges the difficulty of self-development efforts undertaken by professionals and attempts to assist such efforts. Its purpose is to facilitate the enhancement of current self-development skills and where appropriate to support the acquisition of new skills useful in such activities. The syllabus is intended for use by a wide range of professionals in higher education, particularly those seeking to learn the new skills involved in more innovative practice.

22. The Assessor: A CAEL Syllabus for Professionals, Joan Knapp, 1979.

This syllabus is designed to aid in the development and refinement of skills in experiential learning assessment. The goals and objectives included could apply to learning resulting from the classroom setting, independent study, or almost any learning situation in academia. The syllabus reflects the philosophy and goals of both experiential and individualized education. The user is encouraged to fashion and plan his/her own training program and to use the various experiential activities and human and written resources to achieve the objectives suggested in the syllabus. Thus, the syllabus encourages a new look at learning assessment, in general, and facilitates an individualized process for gaining skills and knowledge in this type of assessment as well as transmitting these skills to other professionals.

23. The CAEL Newsletter, Editor: Pamela Tate, Production Manager; Diana Bamford-Rees.

Published five or six times annually, the Newsletter announces and describes CAEL activities, provides annotations of selection publications, describes some related events concerning experiential learning, and on occasion provides special reports on institutional programs. The newsletter is available on an annual subscriptions basis. It is free to members and associate members of CAEL.

24. Opportunities for Prior Learning Credit: An Annotated Directory, Kathleen Beechem, 1979.

This directory lists and describes more than 270 institutions with programs for the assessment of prior learning. Each institution has its own full-page listing including such data as the institutional name, address and telephone number, the name of the person responsible for the prior learning assessment, an institutional description, the percentage of the degree requirements or the number of credit hours which can be applied toward degree programs from prior learning, or through a combination of college transfer credit or credit-by-examination, a list of the degree areas to which credit awarded for prior learning can be applied, and the procedures for assessment (including where available - fee information and the length of time usually required for the prior learning assessment). The entries are listed by state.

25. Developing Assessment Tasks, Module 3, Marvin Cook and Henry H. Walbesser, 1980.

The validation of the quality of educational programs includes the need to assure that students in the programs have actually acquired the intellectual skills identified in the statements of college learning outcomes. Module 3 is designed to be used in faculty workshops focusing on the development of assessment tasks that "match" stated learning outcomes. The many exercises in the Module provide an opportunity for workshop participants to become proficient in the use of the performance agreement principle, to establish the validity of their assessment tasks, and thus contribute to the assurances of the quality of their educational programs.

26. Using Licenses and Certificates as Evidence of College-Level Learning, Harriet W. Cabell, edited by Ruth Cargo, with introduction by Henry Spille, 1980.

This report confirms that considerable college-level learning is required to obtain certain certificates and licenses. It also demonstrates that the learning represented by the certificates and licenses can be - and, in fact, is being - assessed and equated to the learning outcomes of educational programs offered by colleges and universities. The report identifies services needed by institutions and provides specific recommendations for answering those needs. Commissioned jointly by ACE and CAEL, the booklet is based on original research performed in fulfillment of a doctoral degree. Highlights have been selected and a shorter version rewritten for busy practitioners. An appendix reproduces the research questionnaire and the data from which the findings and recommendations derive.

APPENDIX B: PREVIOUS CAEL PUBLICATIONS

The following publications were prepared in earlier CAEL Projects, but include reports and information of continuing interest. They are no longer available through CAEL. Hard copies or microfiche copies are available through ERIC Document Reproduction Service, P.O. Box 190, Arlington, Virginia 22210.

1. Assessing Experiential Learning, Warren W. Willingham, John R. Valley, and Morris T. Keeton, 1977. (ED 148 836)

   This final report of the CAEL project provides an overview of the major activities of CAEL's first three years. In separate chapters it includes a brief history of CAEL, a description of the developmental work, selected important outcomes of the field research, and descriptions of the more significant outcomes of the Operational Models Project and the Faculty Development Program. The final chapter attempts to give an overall sense of what the project accomplished and what major conclusions and implications can be drawn from the effort.

2. The CAEL Validation Report, Warren W. Willingham and Associates, 1976. (ED 148 837)

   The CAEL Validation Report provides detailed documentation of the experimental tryout of CAEL developmental products during 1975-76 and a series of ten field studies involving twenty-four CAEL institutions. The report describes extensive findings that focus on the strengths and weaknesses of different assessment methods and the characteristics of assessment procedures that affect reliability, validity,

and usefulness to students. It includes chapters on - (a) research and quality assurance, (b) findings concerning the assessment of interpersonal competence, (c) findings concerning the assessment of prior learning, (d) findings concerning assessment of occupational competencies, and (e) illustrative institutional studies of the reliability of expert judgment. This report is a basic reference for institutions wishing to examine the consistency and equity of their own assessment procedures and the soundness of their underlying educational rationale.

3. The Use of Expert Judgment in the Assessment of Demonstrated Learning in the Antioch College Yellow Springs Adult Degree Completion Program, Robert Lewis, CAEL Institutional Report No. 1 from Antioch College, 1975. (ED 148 846)

   The unique aspect of this report is its detailed recording of the various issues, questions, and problems that arise when a group of faculty members relatively inexperienced in assessing experiential learning meet together for intensive discussion with more experienced faculty members concerning institutional policies and practices in assessing prior learning. For that reason, the report is a useful reference for any institution wishing to introduce new faculty members to issues concerning assessment and credentials that deserve their attention.

4. Coordinating Educational Assessment Across College Centers, Ruth Churchill, Andre Querrero, Janet Hartle, and Harry Horwitz, A CAEL Institutional Report from Antioch College, 1976. (ED 148 850)

   The authors report on an operational model developed as a result of a systematic analysis of three distinctly different Antioch centers. The model uses four major levels focusing on flow of influence: Level I - the rationale of Antioch College and the individual centers; Level II - programmatic matters bearing on curriculum, faculty, and students; Level III - student assessment based on criterion standards, appraisal of learning and preparation for assessment; and Level IV - methods of translating experiential learning for nontraditional consumption, outlining credit policies and records of learning outcomes. The report discusses five major findings that have important implications for institutions using experiential learning as a core philosophy.

5. Standard Setting by Students and Community - How Much Is Enough? Laurent Daloz and Clotilde Pitkin, a CAEL Institutional Report from Community College of Vermont, 1976. (ED 148 852)

This report extends the position that the highest purpose of education is to foster both community and individual self-reliance. It describes the process and materials developed to help students and local review committees agree on standards that are unique to student goals, that accurately reflect community expectations, and that conform to the institution's educational principles. It lists the steps through which both the student and committee go in the degree development sequence.

6. Implementing and Financing Portfolio Assessment in a Public Institution, Eugene Kray and Lorraine Hultgren, A CAEL Institutional Report from Delaware County Community College, 1976. (ED 148 851)

   The authors first describe the formation, organization, philosophy, and structure of DCCC's program for assessing prior experiential learning. The heart of the report presents a financial model in which (1) all parties - student, state, and local sponsor - share in the cost of assessment in the same proportions as they do for the traditional programs of the college, (2) faculty members are compensated for their time on a contact hour basis according to the number of credits sought by the student - not the number of credits awarded; and (3) the cost of assessment is shown to be approximately one-fourth the cost of traditional course work. This model should be of general interest to both two-year and four-year public colleges.

7. Prospects and Methods for Interpersonal Studies, Miriam Tatzel, CAEL Institutional Report No. 2 from Empire State College (Revised Edition), 1977. (ED 148 847)

   At Empire State College students work with a mentor to develop learning contracts. This institutional report shows how interpersonal learning is integrated into the formal educational process through the learning contract mode. The author describes a framework that takes into account cognitive, affective, and physical behavior; that is, thought, feeling, and action.

8. Implementing Competency-Based Assessment of Prior Learning, Nancy Wylie, A CAEL Institutional Report from Florida International University, 1976. (ED 148 854)

   This report describes the development, trial use, and revision of a competency-based tool for assessing prior learning, the Prior Experiential Learning Evaluation Packet. The author explains the integration of the new assessment process within an existing external degree program; describes

how the external degree program and its students interact with other administrative and academic units of the University; and discusses explicit and implicit standards and their implications for assessment in a context in which the responsibility for assessment is partially decentralized.

9. An Individualized Competence-Based Assessment Model, Annie Belle Calhoun, James E. Deegan, Leah Harvey, and Charles Libera, A CAEL Institutional Report from Metropolitan State University, 1976. (ED 148 839)

   Metropolitan State University is an upper-division, competence-based, baccalaureate degree granting institution created in 1971 to serve adults. This operational model focuses on topics such as criterion standards within the context of an individualized, student-centered, competence-based program; the use of external or community-based persons as expert judges of students' competences; the functions and activities of assessment faculty; the strengths and weaknesses of the narrative transcript; and the effectiveness of the university's assessment policies, procedures, and materials.

10. Documentation and Evaluation of Sponsored Experiential Learning, Jane Szutu Permaul and Marina Buhler Miko, CAEL Institutional Report No. 3 from University of California at Los Angeles (Revised Edition), 1977. (ED 148 858)

    A major problem in assessing off-campus experiential learning is the need to structure the learning process and document the learning outcomes. This report describes the procedure developed at UCLA that explicates the learning that is taking place and therefore helps to shape and improve subsequent learning experiences of the student. The method focuses upon a record-reflection log and an assessment matrix as tools for assessing sponsored learning. These devices emphasize the role of the student and local supervisors in evaluating and molding learning outcomes.

11. The Refinement and Modification of an Instrument for Assessing the Achievement of Interpersonal Skills of Social Work Students, Kurt Spitzer and Sue Smock, CAEL Institutional Report No. 4 from Wayne State University, 1975. (ED 148 857)

    Students engage in many types of field experience learning in different types of settings and in different degree programs. This report is especially concerned with field experience related to social work, but the learning

checklists involve a number of generic skills that apply to many types of field experience. There are twelve checklists for rating student learning. These fall into three areas: (1) basic educational and performance skills, (2) communication and observation skills, and (3) problem-solving skills.

12. Analyzing Costs in the Assessment of Prior Learning, R. Lynn Kelley, Terrence J. MacTaggart, and Robert Spencer, a CAEL Institutional Report from Webster College, 1976. (ED 148 853)

    This report describes the preparation for and the results of a cost analysis of the assessment of prior learning in two programs. It concludes that total assessment costs are significantly less than costs for conventional classroom instruction, that unit costs diminish as the volume of assessment increases, and that the evaluation of the relative benefits of assessment programs should be made within the context of long-range institutional objectives. This model will probably be most useful to private institutions that are faced with changing clientele and have the capacity to attract older students.

13. Guidelines and procedures for the Assessment of Experiential Learning and for the Selection and Training of Field Experts, Frank Christense, CAEL Institutional Report No. 5 from William Rainey Harper College, 1975. (ED 148 855)

    Any college wishing to inititate a program of accepting and crediting nonsponsored experiential learning faces first a procedural problem of considering what type of program and procedures might be appropriate. This report discusses the steps through which William Rainey Harper moved in implementing such a program: setting up a local task force, use of consultants, site visits to other institutions, preparation of procedural documents, and so forth.

14. Initiating Experiential Learning Programs: Four Case Studies, A compilation of four Institutional Reports, The Consortium of the California State University and Colleges, Memphis State University, Union College, and University of Kentucky, 1976. (ED 148 856)

    These four reports all deal with programs that are in some sense in an early stage of development. The report by Barrie Bortnick (Consortium of the California State University and Colleges) describes the efforts of a

traditional decentralized system to introduce flexibility in the use of challenge examinations for crediting prior learning. Richard Ranta's report (Memphis State University) describes how a large traditional state university dealt with the issues involved in specifying criteria for assessing experiential learning, acquanting faculty with the assessment process, and integrating those procedures into the university structure. The report by Dale Meyers and Joe Thomas (Union College) describes the development of a central office for sponsored field experience learning in a liberal arts institution. The report by Barbara Hofer, Robert Sexton, and Ernest Yanarella (University of Kentucky) provides a model for integrating experiential learning in the liberal arts, especially with respect to the curriculum's emphasis upon values and ethics.

APPENDIX C: NEW DIRECTIONS FOR EXPERIENTIAL LEARNING

This series of quarterly sourcebooks, published by Jossey-Bass provides an ongoing review of topics of current and emerging importance in experiential learning. The series is sponsored by the Council for the Advancement of Experiential Learning (CAEL) and the series editors are Morris T. Keeton, CAEL President, and Pamela J. Tate, Associate Provost for Alternative and Continuing Education, State University of New York.

Sourcebooks to date include:

1. Learning By Experience - What, Why, How defines experiential learning and examines what kinds of experiential activities are now being implemented; explains why experiential learning needs to be seen as an integral and essential part of the learning process; and describes how experiential educators at different institutions are improving their programs and resolving pressing problems. Morris T. Keeton and Pamela J. Tate are guest editors. (1978)

2. Developing and Expanding Cooperative Education examines how cooperative education is conducted at different institutions and what changes are occurring; presents guidelines for implementing successful work-study arrangements, and explains how co-op coordinators can help students relate work experience to classroom studies. James W. Wilson, director of the Cooperative Education Research Center at Northeastern University, is the guest editor. (1978)

3. Defining and Measuring Competence shows how competence can be defined and measured for day-to-day educational assessment as well as for degree granting and occupational licensing. Guest editors are Paul S. Pottinger, executive director of the National Center for the Study of Professions, and Joan Goldsmith, co-director of the Institute of Open Education. (1979)

4. Transferring Experiential Credit describes ways for experiential educators to overcome two key problems: (1) assuring that credit is awarded not for experience alone but for college-level learning resulting from experience, and (2) ensuring equitable transfer of experiential learning credit. Guest editors are S.V. Martorana, professor of higher education at Pennsylvania State University, and Eileen Kuhns, program coordinator for educational administration programs, Catholic University of America. (1979)

5. Combining Career Development with Experiential Learning shows how to design educational work experiences that meet the career development needs of individual students. Various career counseling tools, such as self-assessment instruments and life planning exercises, are explained. Frank van Aalst, dean of career development at the College of Charleston in South Carolina, is the guest editor. (1979)

6. Enriching the Liberal Arts Through Experiential Learning describes new ways to improve liberal arts education by introducing both field experience and classroom experiential exercises into traditional curriculums. The editors are James Althof of the Appalachia Educational Laboratory and Stevens Brooks, executive director of the Great Lakes Colleges Association's Philadelphia urban semester. (1979)

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